|  |  |
| --- | --- |
| **RO Summary** | {%tr for a in items %} |
|  | {{ a.ph\_ro\_number }} |
|  | {%tr endfor %} |

|  |  |  |  |
| --- | --- | --- | --- |
| **Description of the change** | | | |
| Based on SW release |  | Affected Components |  |
| Date |  | Responsible |  |

## RO Description / Purpose of the Realization Order (what / why?)

## Requirements

### Identify Relevant Sources for the SW requirements

| **DOORS ID** | **(Brief) Description** | **20 System Req** | **25 System Design** | **10 Stakeholder Request** |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

*Hints:*

* *if no DOORS ID’s available describe relevant documents/chapters or “free text” which sources would you expect* 🡪 *get in discussion with ST responsible, highlight gaps*
* *sources are needed for linkage of the SW requirements*

### Propose and/or list valid SW Requirements

| **ID or proposed module/chapter** | **(Complete/Final) Description** | **Safety Integrity Level** | **new [N]**  **changed [C]**  **unchanged [U]** | **Arc**  **Mapping** |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

*Hints:*

* *if no DOORS ID’s available yet propose new SW requirements incl. target module and chapter (new [N])*
* *if available DOORS ID shall be changed propose new description (changed [C])*
* *list the available DOORS ID’s in case of bugfixes, software improvements (unchanged[U])*
* *The Arc Mapping is a part of the SW architecture after the SW requirements are completed. The associated SW components are to be listed here to show the link between SW requirements and SW architecture.*

### Additional Remarks, Gaps

| **Additional Remarks, Gaps** | **Planning RO** |
| --- | --- |
|  |  |

*Hints:*

* *if more SW requirements related to the feature are wrong or missing* 🡪 *highlight the gaps, if gap cannot be closed within this RO for future planning*

### Requirements Approval

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Review method | | Walkthrough |  |  | Requirements agreed |  |
|  | | Inspection |  |  | Requirements **not** agreed |  |
|  | | | | Moderator |  | |
| Author |  | |
| REQ - Responsible |  | |
| Date |  | | | Participants |  | |

## Architecture

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **SW-Component** | **Type of change** | | | | **Remark** |
|  | **delete** | **rename** | **change [S M L]** | **new** |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

|  |  |  |
| --- | --- | --- |
| **SW-Architecture solutions necessary?**  (change of interface or dynamic behavior) | **[0, X]** |  |

### Solution variant 1:

Description and attachments

**Assessment matrix** (necessary if solution variant necessary)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Memory**  **[-, 0, +]** | **Runtime**  **[-, 0, +]** | **Complexity**  **[-, 0, +]** | **Testability**  **[-, 0, +]** | **Reusability**  **[-, 0, +]** | **Risk**  **[-, 0, +]** | **Effort**  **[-, 0, +]** |
|  |  |  |  |  |  |  |
| high - low + | high - low + | high - low + | bad - good + | bad - good + | high - low + | high - low + |

|  |  |  |
| --- | --- | --- |
| **Additional architecture solutions necessary?** (more than one “–“ in Assessment Matrix?) | **[0, X]** |  |

### Solution variant 2: (if necessary)

Description and attachments

|  |  |
| --- | --- |
| Decision | |
| Variant |  |
| Reason |  |

|  |  |  |  |
| --- | --- | --- | --- |
| **new / changed / deleted interfaces** | | | |
| **Transmitter** | | **Receiver** | |
| **Component** | **Interface** | **Component** | **Remark** |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

### Architecture Approval

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Review method | | Walkthrough |  |  | Architecture agreed |  |
|  | | Inspection |  |  | Architecture **not** agreed |  |
|  | | | | Moderator |  | |
| Author |  | |
| ARC - Responsible |  | |
| Date |  | | | Participants |  | |

## Design

|  |  |  |
| --- | --- | --- |
| ID | Filename / Description of change | Type |
| {%tr for a in items %} | | |
| {{ a.id }} | {{ a.filename }} | |
| {{ a.description }} | {{ a.source }} |
|  | | |
| {%tr endfor %} | | |

### Affected Component Edit Name:

**Unit (C file) Edit Name:**

Description of Change within Unit

Edit Change of unit description

#### Function Edit Name of Function()

Description of function

Edit Change of description

Input interfaces:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Function Arguments | Description | Min | Max | Unit + Resolution |
| Edit Change |  |  |  |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Used Variables | Description | Min | Max | Unit + Resolution |
| Edit Change |  |  |  |  |

Calibration Parameter:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Calibration Label | Description | Min | Max | Unit + Resolution |
| Edit Change |  |  |  |  |

Output interfaces:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Global and Return | Description | Min | Max | Unit + Resolution |
| Edit Change |  |  |  |  |

#### Dynamic Function Behaviour

Remark: Edit Change

### Detailed Design Approval

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Review method | | Walkthrough |  |  | Detailed Design agreed |  |
|  | | Inspection |  |  | Detailed Design **not** agreed |  |
|  | | | | Moderator |  | |
| Author |  | |
| DD - Responsible |  | |
| Date |  | | | Participants |  | |

## Summary, Effort Estimation and Final Approval

### Summary table and Effort Estimation

|  |  |  |
| --- | --- | --- |
| **Process** | **Short description of action** | **Effort net [h]** |
| **DCD** |  | 0 |
| **SWE.1 SW Req** |  | 0 |
| **SWE.2 SW Arc** |  | 0 |
| **SWE.3 SW DD** |  | 0 |
| **SWE.3 SW UC** |  | 0 |
| **SWE.4 SW UT** |  | 0 |
| **SWE.5 SW IT** |  | 0 |
| **SWE.6 SW QT** |  | 0 |
| **Review** |  | 0 |
| **Miscellaneous** |  | 0 |
| **Realization Effort** | Update: right mouse button / !Update Fields 🡺 | **0** |

### Final Approval

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Review method** | | Walkthrough |  |  | Proposal agreed |  |
|  | | Inspection |  |  | Proposal **not** agreed |  |
|  | | | | Moderator |  | |
| Author |  | |
| Approved |  | |
| Date |  | | | Participants |  | |